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April 13, 2005

Mr. James Ricks, SFD-8-1
EPA Work Assignment Manager
U.S. Environmental Protection Agency, Region IX
75 Hawthorne Street
San Francisco, CA 94105

Subject: **Contract No. 68-W-02-052 / WA No. 052-19-09P3**
Hunters Point Shipyard Work Assignment, Draft IR-2 Letter, "Radiological Time-Critical Removal Action (TCRA) at Installation Restoration (IR-02) Northwest and Central, Parcel E," Hunters Point Shipyard

Dear Mr. Ricks:

As requested during our meeting on April 12, 2005, Techlaw has prepared a draft letter to express EPA's concerns about the handling of contaminated soil during the IR-02 Northwest and Central Radiological Removal Action.

One potential concern that we did not include in the letter, pending review of this issue by Robert Carr, esq. is that the proposed action will constitute treatment. If this is the case, the following text could be added to the attached letter.

> It appears that the proposed action will constitute treatment. Physical separation is treatment as it renders the soil less toxic.
>
> The definition of treatment technology under CERCLA (40 CFR 300.105) is :
>
> > Treatment technology means any unit operation or series of unit operations that alters the composition of a hazardous substance or pollutant or contaminant through chemical, biological, or ***physical means*** so as to reduce toxicity, mobility, or volume of the contaminated materials being treated. Treatment technologies are an alternative to land disposal of hazardous wastes without treatment. (emphasis added)
>
> The 13 March 1995 memorandum on "Use of the Area of Contamination (AOC) Concept During RCRA Cleanups" states that, "Placement does occur, and additional RCRA requirements may be triggered, ...when waste is actively

managed (e.g., treated ex situ) within or outside the AOC and returned to the land." If the mixing that occurs during use of the grizzly, stockpiling, and returning to soil to the excavation is considered treatment, then the Land Disposal Restrictions (LDRs) would be triggered and the soil could not be simply returned to the excavation.

The LDRs restrict disposal of hazardous waste to land without treatment. If through the process of physically separating the radiological materials from the soil, the residual material becomes a waste, the Navy would require permission from the state, under the Resource Conservation and Recovery Act (RCRA), to dispose of the material to land. It is unlikely that this permission would be granted due to the proximity of this site to the Bay and the lack of even a rudimentary liner system.

If this concern is validated by Mr. Carr, the paragraph beginning "A third possibility..." should be deleted from the attached letter. In addition, the indented text provided above, beginning "It appears that..." should be inserted in the letter to the Navy before the paragraph beginning, "If the Navy proceeds...."

This cover letter and the draft letter of concern are being forwarded to you through electronic mail (via Internet) in WordPerfect® Version 11 format. A hard copy of the letters will also be submitted.

Thank you for the opportunity to provide the U.S. EPA with technical oversight services for Hunters Point Shipyard. Should you have any questions or comments, please contact the TechLaw Site Manager, Karla Brasaemle, at (415) 281-8730, extension 12.

Sincerely,

Indira G. Balkissoon
Regional Manager

KB:JR:IB:sm

cc: Patricia Brown-Derocher/Central Files, TechLaw, Inc.
Michael Work, U.S. EPA

HPS277-052 IR-02 letter.wpd

April 13, 2005

Mr. Keith Forman
BRAC Environmental Coordinator for
Hunters Point Shipyard
Southwest Division Naval Facilities Engineering Command
BRAC Operations
1230 Columbia Street, Suite 1100
San Diego, CA 92101-8517

RE: **Radiological Time-Critical Removal Action (TCRA) at Installation Restoration (IR-02) Northwest and Central, Parcel E, Hunters Point Shipyard**

Dear Mr. Forman:

Thank you for the opportunity to review the draft "Project Work Plan, IR-02 Northwest and Central, Parcel E, Hunters Point Shipyard, San Francisco, CA," dated March 9, 2005. During our review of this document we identified several concerns and are bringing them to your attention prior to submission of our formal comments.

We are concerned that this TCRA may not be consistent with the final remedy that would eventually be selected for IR-02 through the normal CERCLA process. It is likely that a final remedy would address both radiological and non-radiological contaminants in a single action and would not result in returning soils contaminated with metals, polychorinated biphenyls (PCBs), and pesticides at concentrations above the applicable California Total Threshold Limit Concentration (TTLC) into the excavation. The National Contingency Plan (NCP) states that "Removal actions shall, to the extent practicable, contribute to the efficient performance of any anticipated long-term remedial action with respect to the release concerned" (40 CFR 300.415(d)). An action which results in returning mixed contaminated and uncontaminated soil to an excavation is not likely to be consistent with the final remedy and may require digging up the soil a second time.

In addition, it appears that the greatest threat to the environment in the IR-02 Northwest and Central Area is the concentrations of metals in soil, not the presence of radium dials and devices. Based on data from the Parcel E Remedial Investigation Report and the Parcels E and E-2 Standard Data Gaps Investigation Data Summary Report, eight metals are present in site soils at concentrations above the TTLC. These metals are antimony (maximum concentration 1,930 milligrams per kilogram [mg/kg]), barium (maximum 16,200 mg/kg), cadmium (maximum102 mg/kg), copper (maximum 198,000 mg/kg), lead (maximum 19,700 mg/kg), mercury (maximum 69.2 mg/kg), nickel (maximum 10,300 mg/kg), and zinc (maximum 25,000 mg/kg). Seven of these metals have also been detected in groundwater samples collected from site monitoring wells at concentrations that exceed national ambient water quality criteria (NAWQCs). Since this site is adjacent to San Francisco Bay and the groundwater flow direction has been returning

to natural flow conditions toward the Bay following the repair of water lines and the blocking of sanitary sewer lines, it is likely that groundwater with metals concentrations above the NAWQC will be discharged to the Bay in the near future. The proposed removal action will not address this problem because soil contaminated with high concentrations of metals will be returned to the excavation, where metals can continue to leach into groundwater. It is likely that disturbing the soil will make it more permeable to infiltration of precipitation and hence, a greater threat to the environment.

Further, since only surface sampling was done in some areas and there are areas in the eastern part of IR-02 that have not been sampled, the extent of contamination has not been delineated. It is recommended that additional samples be collected in the eastern section of IR-02 to delineate the extent of metals, polychlorinated biphenyl (PCB), and pesticide contamination.

It is clear to U.S. EPA that the metals concentrations detected in soil samples collected at IR-02 pose a threat to human health and the environment. During the preparation of the Record of Decision for this site, U.S. EPA will not approve any remedy for these soils that does not result in either the physical removal of the soils or treatment of the soils to the point where they do not pose a threat to human health or the environment.

It is understood that for programmatic reasons the Navy wishes to proceed with the radiation removal action. However, the Agency is concerned that this removal action will increase the threat posed by the site by increasing the permeability of the soils returned to the excavations. Also, as it is likely that soil will have to be excavated twice, the removal action doubles exposure of site workers and residents in the Bayview District. Hence, the Agency feels that the removal action will not be effective in the short term. Certainly, it will not be effective in the long term.

In addition, the inevitable mixing of the soils that will take place during the removal action will cause dilution of the contaminant concentrations. One result of this dilution will be a requirement that the final remedy treat or remove all of the soils (otherwise the removal action would constitute illegal dilution in lieu of treatment). If the soils are excavated during the final remedial action, all of them will require disposal in a hazardous waste landfill, not just the portion that are deemed to be hazardous at the time of the excavation. This is unfortunate as it appears that targeted hotspot removals of soils contaminated with metals (as well as PCBs and pesticides) could eliminate all of the characteristically hazardous material at the site at a lower cost than reexcavation and disposal of a larger volume of contaminated soils.

If the Navy proceeds with this excavation, excavated soil with contaminant concentrations above the TTLCs should be disposed off site during this action. If this is not possible, a Corrective Action Management Unit (CAMU) could be created to allow stockpiling contaminated soil until disposal can be done. Soil should be segregated so that soil from the most contaminated areas can be stockpiled and tested prior to disposal. It may be possible to identify some of the soil requiring special handling visually, since a review of the boring logs suggests it may be sand blast grit. In addition, Naval Facilities Engineering Service Center Technical Memorandum

TM-2179-ENV states that abrasive blasting material (i.e., sand blast grit) made from copper slag, nickel slag, or coal slag may contain elevated levels of regulated metals, so it is possible that the source of the elevated metals at IR-02 is spent sand blast grit.

A third possibility is that under the Area of Contamination (AOC) concept, soil with the highest concentrations of metals, PCBs, and pesticides, could be segregated and placed within a geomembrane in the excavation so that it can be identified and addressed during the remedial action. This would minimize the impact of this action on future remedies.

U.S. EPA would like to schedule a discussion of these concerns with the Navy so that the issues can be resolved before excavation begins on May 26, 2005. We look forward to working with you to resolve this issue. If you have any questions, please contact me at (415)972-3023.

Sincerely,

James Ricks
Remedial Project Manager
Superfund Division (SFD-8-1)